

SCHWINN, Debra A.
Appl. No. 10/715,844
October 22, 2007

RECEIVED
CENTRAL FAX CENTER

OCT 22 2007

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 1-24 (Cancelled)

25. (Currently Amended) A method of detecting disease in a human patient comprising screening DNA present in a biological sample from said patient for at least one mutation in the α_{1a} adrenergic receptor (α_{1a} AR) gene, the presence of said mutation being indicative of disease or predisposition to disease,

wherein said at least one mutation is at least one point mutation that results in an amino acid substitution in a transmembrane (TM) helix selected from the group consisting of TM4, TM5 and TM7 or in the third intracellular loop (IL) of α_{1a} AR.

26. (Cancelled).

27. (Withdrawn and Currently Amended) The method according to claim 25 wherein said at least one mutation is in a TM helix TM4, TM5 or TM7.

28. (Withdrawn and Currently Amended) The method according to claim 27 wherein said at least one mutation is alanine for serine¹⁵⁴ (S154A), lysine for arginine¹⁶⁶ (R166K), serine for isoleucine²⁰⁰ (I200S) or isoleucine for valine³¹¹ (V311I).

SCHWINN, Debra A.
Appl. No. 10/715,844
October 22, 2007

29. (Currently Amended) The method according to claim 25 wherein said at least one mutation is in an said third IL.

30. (Currently Amended) A method of detecting disease in a human patient comprising screening DNA present in a biological sample from said patient for at least one mutation in the α_{1a} AR gene, the presence of said mutation being indicative of disease or predisposition to disease. ~~The method according to claim 29 wherein said mutation is arginine for glycine²⁴⁷ (G247R).~~

31. and 32. (Cancelled).

33 (Previously Presented) The method according to claim 25 wherein said disease is a cardiovascular disease, a psychiatric disease, or cancer.

34 (Previously Presented) The method according to claim 33 wherein said disease is hypertension, atherosclerosis, or myocardial hypertrophy.

35. (Previously Presented) The method according to claim 25 wherein said disease is benign, prostatic hypertrophy.

36. (new) The method according to claim 30 wherein said disease is hypertension, atherosclerosis or cancer.

SCHWINN, Debra A.
Appl. No. 10/715,844
October 22, 2007

37. (New) The method according to claim 36 wherein said disease is hypertension or atherosclerosis.